AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method ~~Method~~ of generating a mixed media stream from input media streams of a first type having payload data elements and related identifiers, respectively, comprising the step:

aligning the input media streams of the first type according to a pre-specified relation between identifiers in the input media streams of the first type before generating the mixed media stream, wherein

the pre-specified relation between identifiers in the input media streams of the first type is matched to a relation between identifiers in further input media streams of a second type used during generation of a further mixed media stream from the input media streams of the second type.

2. (Currently Amended) The method ~~Method~~ according to claim 1, wherein ~~characterized in that~~ the matching of relations between identifiers in the input media streams of the first type and further input media streams of the second type is achieved by

identifying an intersection between the input media streams of the first type and the further input media streams of the second type,

determining a relation between identifiers in the further input media streams of the second type for those further input media streams which are comprised in the intersection, <u>and</u>

aligning the input media streams of the first type which are comprised in the intersection according to the relation of identifiers in the further input media streams of the second type.

3.   (Currently Amended)   <u>The method</u> ~~Method~~ according to claim 2, characterized in that the input media streams of the first type at a point in time are described by $I_s = [(q_1, n_1), (q_2, n_2), ..., (q_s, n_s)]$ with $\{q_1, q_2, ..., q_m\}$ as <u>a</u> set of input media streams and $\{n_1, n_2, ..., n_s\}$ as <u>a</u> set of identifiers in the input media streams at a point in time,

the further input media streams of the second type at a point in time are described by $I_M = [(s_1, i_1), (s_2, i_2), ..., (s_m, i_m)]$ with $\{s_1, s_2, ..., s_m\}$ as <u>a</u> set of further input media streams and $\{i_1, i_2, ... i_m\}$ as <u>a</u> set of identifiers in the further input media streams of the second type at the point in time,

the intersection between the input media streams of the first type and the further input media streams of the second type is $S_A = \{s_1, s_2, ..., s_m\} \cap \{q_1, q_2, ... q_s\}$, and

the relation between identifiers in the further input media streams of the second type for those further input media streams of the second type which are comprised in the intersection is determined <u>by</u> ~~on the basis of~~

$$I_s' = \bigcup_{j \in [1, ..., s]} \{(q_j, n_j) \mid q_j \in S_A\}.$$

4.   (Currently Amended)   The method ~~Method~~ according to claim 3, further comprising the ~~characterized in that it further comprises~~ a step of re-ordering the sequence of input media streams of the first type in the intersection according to the sequence of further input media streams of the second type in the intersection.

5.   (Currently Amended)   The method ~~Method~~ according to claim 4, wherein ~~characterized in that~~ the re-ordering of the sequence of input media streams of the first type is achieved according to a permutation vector defined by $\forall_{i \in [1,\ldots,|I_{s'}|]} \{p(i) = j$

$\in [1,\ldots,|I_{s'}| \, | s_i = q_j\}$.

6.   (Currently Amended)   The method ~~Method~~ according to claim 2, wherein ~~the claims 2 to 5, characterized in that~~ the alignment of input media streams of the first type in the intersection is achieved by

determining a relative time delay for each input media stream of the first type such that relations between different identifiers in the input media streams of the first type after time delay correspond to relations between identifiers in the further input media streams of the second type, and

shifting each input media stream of the first type in time according to the related time delay.

7.   (Currently Amended)   The method ~~Method~~ according to claim 6, wherein ~~characterized in that~~ the time delay for each input media stream of the first type is determined according to

$$\delta_i = i_i - n_{p(i)}, i = 1,\ldots, |I_s'|$$

$$\delta_i' = \delta_i - \max_{j\in[1\ldots|I_s'|]} \delta_j, i = 1,\ldots,|I_s'|$$

and each input media stream of the first type is shifted in time according to

$$q_{si}'(t) = q_{si}(t + \delta_i'), i = 1,\ldots, |I_s'|.$$

8.   (Currently Amended)   The method ~~Method~~ according to <u>claim 1,</u>
<u>wherein</u> ~~one of the claims 1 to 7, characterized in that~~ an exchange of information
regarding the pre-specified relation between identifiers is achieved through a signal
transfer or a shared-memory mechanism.

9.   (Currently Amended)   <u>An apparatus</u> ~~Apparatus~~ for generating a
mixed media stream from input media streams of <u>a</u> ~~the~~ first type having payload data
elements and related identifiers of a second type, comprising:

an identifier interface unit ~~(20)~~ for exchange of <u>a</u> ~~the~~ pre-specified relation
between identifiers in different input media streams, and

an alignment unit ~~(22)~~ adapted to align the input media streams of the first
type according to the pre-specified relation between identifiers in different input
media streams of a second type before generating the mixed media stream.

10.   (Currently Amended)   <u>The apparatus</u> ~~Apparatus~~ according to claim 9,
<u>wherein</u> ~~characterized in that~~ the pre-specified relation is matched to a relation between
identifiers in further input media streams of [[a]] <u>the</u> second type used during generation
of a further mixed media stream and that the matching of relations between identifiers in

the input media streams of the first type and in the further input media streams of the

second type is achieved by

a pre-processing unit (28) adapted to identify an ~~and~~ intersection between

the input media streams of the first type and the further input media streams of

the second type,

a calculation unit (30) adapted to determine a relation between identifiers

in the further input media streams of the second type for those further input

media streams of the second type which are comprised in the intersection, and

~~the~~ an aligning unit (32) adapted to align the input media streams of the

first type which are comprised in the intersection according to the relation of

identifiers in the further input media streams of the second type.

11.   (Currently Amended)   The apparatus ~~Apparatus~~ according to claim

10, wherein ~~characterized in that~~

the input media streams of the first type ~~time~~ at a point in time are

described by $I_s = [(q_1, n_1), q_2, n_2), \ldots, (q_s, n_s)]$ with $\{q_1, q_2, \ldots, q_m\}$ as the set of input media

streams of the first type and $\{n_1, n_2, \ldots, n_s\}$ as a set of identifiers in the input media

streams of the first type at a point in time,

the further input media streams of the second type at a point in time are

described by $I_M = [s_1, i_1), (s_2, i_2), \ldots, (s_m, i_m)]$ with $\{s_1, s_2, \ldots, s_m\}$ as a set of further input

media streams of the second type and $\{i_1, i_2, \ldots, i_m\}$ as a set of identifiers in the

further input media streams of the second type at the point in time,

the pre-processing unit (28) is adapted to determine the intersection

between the input media streams of the first type and the further input media

streams of the second type according to $S_A = \{s_1,s_2,...,s_m\}\cap\{q_1,q_2,...,q_s\}$, and

the pre-processing unit (28) is further adapted to determine the relation

between identifiers in the further input media streams of the second type for

those further input media streams of the first type which are comprised in the

intersection on the basis of $I_s' = \bigcup_{j\in[1,...,s]} \{(q_j,n_j)|q_j\in S_A\}$.

12.   (Currently Amended)   The apparatus ~~Apparatus~~ according to claim

10 <u>wherein</u> ~~or 11, characterized in that~~ the pre-processing unit (28) is further adapted to

re-order the sequence of input media streams of the first type in the intersection

according to the sequence of further input media streams of the second type in the

intersection.

13.   (Currently Amended)   The apparatus ~~Apparatus~~ according to claim

12, <u>wherein</u> ~~characterized in that~~ the pre-processing unit (28) is adapted to re-order the

sequence of input media streams of the first type according to a permutation vector

defined by $\underset{i\in[1...,|I_s'|]}{\forall} \{p(i)=j\in[1,...,|I_s'|]|s_i=q_j\}$.

14.   (Currently Amended)   The apparatus ~~Apparatus~~ according to <u>claim 9,</u>

<u>wherein</u> ~~one of the claims 9 to 13, characterized in that~~ the alignment of input media

streams of the first type in the intersection is achieved by

the calculation unit (30) adapted to determine a relative time delay for each input media stream of the first type such that relations between different identifiers in the input media steams of the first type, after time delay, correspond to relations between identifiers in the further input media streams of the second type, and

a shifting unit (32) adapted to shift each input media stream of the first type in time according to the related time delay.

15.   (Currently Amended)   The apparatus ~~Apparatus~~ according to claim 14, ~~characterized in that~~ the calculation unit (30) is adapted to calculate the time delay for each input media stream of the first type according to

$$\delta_i = i_i - n_{p(i)}, \, i = 1, \ldots, |I_s'|$$

$$\delta_i' = \delta_i - \max_{j \in [1 \ldots |I_s'|]} \delta_j, i = 1, \ldots, |I_s'|$$

and the shifting unit (32) is adapted to shift each input media stream of the first type in time according to

$$q_{si}'(t) = q_{si}(t + \delta_i'), \, i = 1, \ldots, |I_s'|$$

16.   (Canceled)